

## ABSTRACT OF THE DISCLOSURE

A mobile device, for determining location in a wireless network, includes a motion detector for detecting motion of the mobile device; a memory for storing wireless signal strength calibration data comprising a list of wireless signal strengths and known locations; a location detection module for measuring a wireless signal strength of any received network radio signals and for determining the location of the mobile device with reference to the wireless signal strength calibration data; and a location correction module, for applying a statistical correction to the measured wireless signal strength determined by the location detection module when the motion detector detects that the mobile device is moving less than a threshold amount. The mobile device may further include an orientation detector for detecting the orientation of the mobile device, which can be compared with orientation data stored in the calibration data.